

**DETAILED ACTION**  
**EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Douglas Russell (Reg. No. 40,152) on Wednesday May 21, 2008.

The application has been amended as follows:

Claim 20 has been amended as following:

-- 20. The rotary apparatus as claimed in claim 19, wherein:

a means for [[energy]] **additioning** and [[removal]] **removing energy** is placed on the enclosure so as to be able to use the apparatus as an internal combustion engine with a variable compression ratio;

the means for [[energy]] **additioning** and [[removal]] **removing energy** is operated so as to be able to use the apparatus as an internal combustion engine with a variable compression ratio; and

the means for [[energy]] **additioning** and [[removal]] **removing energy** is timed so as to be able to use the apparatus as an internal combustion engine with a variable compression ratio. --



***Allowable Subject Matter***

The following is an examiner's statement of reasons for allowance: The prior art fails to disclose or renders obvious the claimed combination of a rotary apparatus having two identical vanes, two hollow sleeves, a hollow liner, timing devices including cams and associated linkages, a couplings/clutch, a shaft, and a braking/holding arrangement; said vane being fitted on to the hollow sleeves, and some portion of a vane surface protrudes out of the sleeve's end; said surfaces where the vanes are attached on the hollow sleeves so as to allow a rotation of the adjacent vanes and said hollow sleeves fitting about a coaxial axis of said hollow sleeves; said braking arrangement actuated by said cams or holding arrangement maintaining said vanes stationary at a controlled but variable position alternately; said cams define the angle by which the vanes are held stationary, separated, rotated simultaneously or independently; and further including:

"Regarding claim 13:

*said cams defining a variable initial angular displacement between vanes at the start of a sequence; said vanes divide said enclosure formed inside the liner into two chambers, characterized by the fact that said two hollow sleeves are coupled and uncoupled with a shaft by means of said coupling/clutching actuated by cams placed on and, or driven by the hollow sleeves; and said timing devices allow said both vanes to rotate simultaneously through a predefined variable angle resulting in said rotary apparatus functioning with a variable compression ratio".*

***Conclusion***

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably



accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai-Ba Trieu whose telephone number is (571) 272-4867. The examiner can normally be reached on Monday - Thursday (6:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TTB  
May 21, 2008

/Thai-Ba Trieu/  
Primary Examiner  
Art Unit 3748